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[Abstract]

The present invention relates to a memory cell device and a method thereof.

In the memory cell, each memory cell comprises FET having a gate dielectric (14), wherein the gate dielectric (14) comprises at least one ferroelectric layer (142). According to the code of the remanent polarization of the ferroelectric layer (142), the FET represents two inconsistent threshold voltages which have the same code and are assigned to the logic states "0" and "1". The information is recorded in order to re-polarize the ferroelectric layer (142). The information item is read by applying voltage to the FET gate electrode, and voltage is between two thresholds.